Exponent Rules Homework Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_

***Directions:*** *Simplify each expression into exponential notation using the product rule.*

|  |  |
| --- | --- |
| Expression | Exponential Notation |
| 97 ∙ 95 |  |
| *g 5∙ g-2* |  |
| *(4t 2)(3t-4)* |  |

***Directions:*** *Simplify each expression into exponential notation using the power rule.*

|  |  |
| --- | --- |
| Expression | Exponential Notation |
| *(y2)7* |  |
| (63)-8 |  |
| (*(2f)5*)5 |  |

***Directions:*** *Simplify each expression into exponential notation using the quotient rule.*

|  |  |
| --- | --- |
| Expression | Exponential Notation |
|  |  |
|  |  |
|  |  |

***Directions: Explain in your own words.***

*a. What is the value of ( )*0*?\_\_\_\_\_\_\_\_\_ Why? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*b. State the steps for evaluating this expression:*

*(1) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*(2) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

***Directions:*** *Simplify each expression and* ***evaluate****. [Remember the order of operations].*

1. (66-6)0 ∙ 26 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 7 ∙ + 140 ∙ 10 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Directions:*** *Simplify the expression; write your answer with positive exponents.*

1. = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_